Population Characteristics
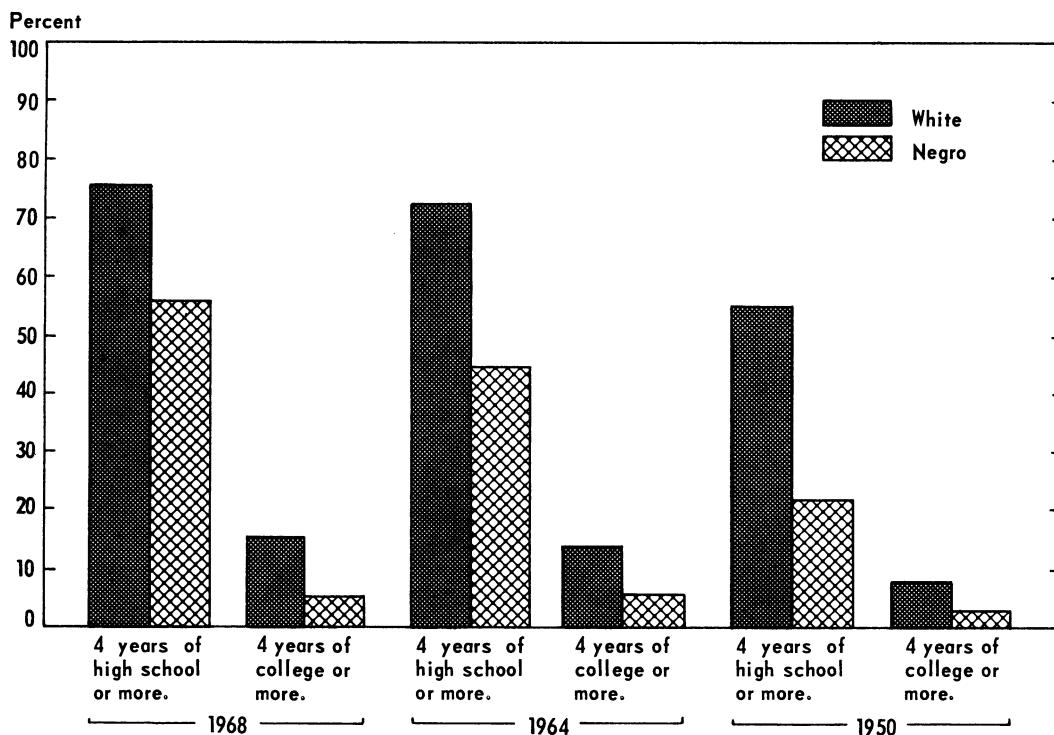
EDUCATIONAL ATTAINMENT: MARCH 1968

Figure 1.-- Percent of Population Age 25 to 29 Who Completed 4 Years of High School or More or 4 Years of College or More, by Race, for the United States: 1968, 1964, and 1950

U.S. DEPARTMENT OF COMMERCE / Bureau of the Census

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About 76 percent of young American adults (22 to 24 years of age) had completed 4 years of high school, including those who had gone on to college, and 14 percent had completed 4 years of college or more, according to findings based on the March 1968 Current Population Survey conducted by the Bureau of the Census. The attainment of this young adult group was considerably higher than that of the older adults aged 25 and over, of whom only 53 percent had completed 4 years of high school and 10 percent had completed at least 4 years of college (table 1).

Among persons 25 years old and over, men and women differed in the percent who had completed high school and college. A slightly larger proportion of women than men had completed at least 4 years of high school--53 percent compared with 52 percent--but 13 percent of the men had completed 4 years of college or more, compared with 8 percent of the women.

The educational attainment of the population 25 years old and over rose between 1964 and 1968 and the difference between the educational attainment of the white and nonwhite population narrowed.

There was an increase in the median years of school completed from 11.7 years to 12.1 years for all persons 25 and over. The median for white persons increased very little, from 12.0 years to 12.1 years, but the median for nonwhite persons increased considerably from 8.9 years to 9.5 years. In spite of this gain, the nonwhite figure was still 2.6 years below that for whites in 1968 (table A).

Regionally, the educational attainment of persons aged 25 and over in 1968 was highest in the West, as measured by median years of school completed, by the percent of the population who had completed at least 4 years of high school, and by the percent who had completed 4 years of college or more. Persons residing in the South had the lowest median years of school completed and the lowest percent who were at least high school graduates, but those who resided in the North Central Region had the lowest percent who had completed 4 years of college or more.

These regional differences were probably not a consequence entirely of differences in the educational attainment of persons raised in the respective regions but were also a consequence in part of selective migration as well as other reasons (tables B and 3). Data on the educational attainment of migrants 25 to 44 years old show that those who moved from one region to another had a higher educational attainment than the general

Table A.--MEDIAN SCHOOL YEARS COMPLETED BY AGE AND COLOR, FOR THE UNITED STATES: 1968 AND 1964

Age and color	Median years of school completed		
	1968	1964	In-crease
Total, 25 years and over....	12.1	11.7	0.4
White, 25 years and over........	12.1	12.0	0.1
25 to 29 years................	12.6	12.5	0.1
30 to 34 years................	12.5	12.4	0.1
35 to 44 years................	12.4	12.3	0.1
45 to 54 years................	12.2	12.0	0.2
55 to 64 years................	10.6	9.7	0.9
65 years and over............	8.7	8.5	0.2
Nonwhite, 25 years and over.....	9.5	8.9	0.6
25 to 29 years................	12.2	11.8	0.4
30 to 34 years................	11.9	11.3	0.6
35 to 44 years................	10.5	10.1	0.4
45 to 54 years................	8.9	8.3	0.6
55 to 64 years................	7.2	7.2	-
65 years and over............	5.7	5.0	0.7

- Represents zero.

Table B.--LEVEL OF SCHOOL COMPLETED BY ALL RESIDENTS AND IN-MIGRANTS 25 TO 44 YEARS OLD, FOR REGIONS: MARCH 1968

(Percent)

Level of school and migration status	North-east	North Central	South	West
ALL RESIDENTS				
4 years of high school or more.............	69.4	69.1	58.6	73.4
1 year of college or more.................	25.1	23.8	22.5	33.3
IN-MIGRANTS FROM OTHER REGIONS				
4 years of high school or more..............	85.9	72.9	69.3	74.5
1 year of college or more.................	51.5	47.7	34.8	37.3

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Figure 2.--A Profile of Educational Attainment. Occupation, and Income in 1967 of Employed White and Negro Males, 25 to 64 Years Old, for the United States: March 1968

Employed Negro men
had less education than
employed white men.

3 years
of high school
or less

4 years
of high school

1 to 3 years
of college

White
Negro

4 years
of college
or more

0   20   40   60   80   100
Percent with specified level
of education.
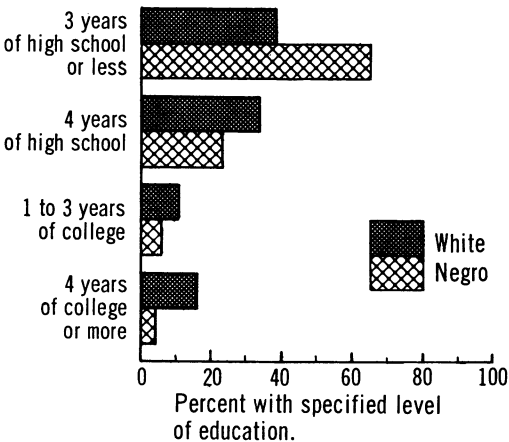
Among workers with a given
amount of education,
Negro men were less
likely to hold a white-collar job
than were white men.

3 years
of high school
or less

4 years
of high school

1 to 3 years
of college

4 years
of college
or more

0   20   40   60   80   100
Percent in white-collar jobs.
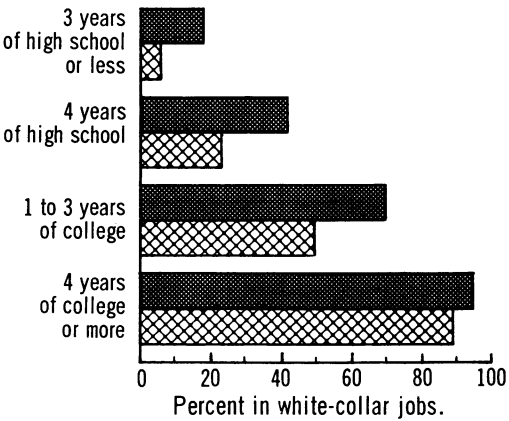
Among workers with a given
type of job and a given
amount of education,
Negro men had less income
than their white counterparts.

White-collar workers
with 3 years of
college or less

White-collar workers
with 4 years of
college or more

Blue-collar workers
with 3 years of
high school or less

Blue-collar workers
with 4 years of
high school or more

0   20   40   60   80   100

Percent with income of $6,000
or more in 1967.
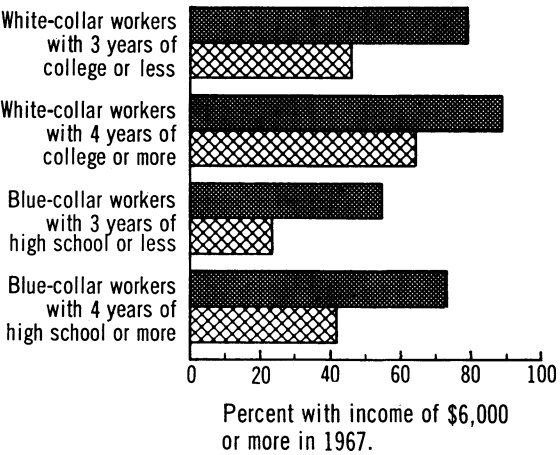
population. Migrants of this age to the Northeast had completed more schooling--as measured by the percent who had completed 4 years of high school or more--than migrants to any of the other regions. Of those who migrated into the Northeast from other regions, 86 percent had completed at least 4 years of high school.

There is some evidence that employed white males aged 25 to 64 of a given educational level were more likely to be white-collar workers and to have higher incomes than were Negro males at the same educational level. Among employed white college graduates of this age group, 95 percent were working in white-collar jobs compared to 88 percent of employed Negro college graduates. Moreover, only 12 percent of these white male college graduates working in white-collar jobs had incomes under $6,000 in 1967 compared to 35 percent of the Negroes. Among blue-collar and service workers who were men 25 to 64 years old, 74 percent of the whites who were high school graduates had incomes of $6,000 or more in 1967 compared to 42 percent of the Negroes, and 55 percent of the white men who were not high school graduates had incomes of $6,000 or more compared to 24 percent of the Negroes (figure 2 and table 7).

Among white-collar workers, white persons benefited more from having completed 4 years of college or more than did Negroes. The median income in 1967 of both whites and Negroes who were working as white-collar workers was higher if they were college graduates than if they were only high school graduates. However, the difference in income for Negroes was less than the difference for whites. Likewise, the median income of both whites and Negroes who were blue-collar workers and had completed 4 years of high school only was higher than if they had not completed high school. Again, the difference in income for Negroes was less (tables C and 7).

Table C.--MEDIAN INCOME IN 1967 OF WHITE AND NEGRO MALES 25 TO 64 YEARS OLD EMPLOYED IN NONFARM OCCUPATIONS, BY LEVEL OF SCHOOL COMPLETED, FOR THE UNITED STATES: MARCH 1968

Level of school and broad occupation group	White	Negro
WHITE-COLLAR WORKERS		
4 years of college or more......	$11,480	$7,384
1 to 3 years of college.........	9,267	6,960
4 years of high school only.....	8,631	6,216
BLUE-COLLAR AND SERVICE WORKERS		
4 years of high school only.....	$7,652	$5,345
3 years of high school or less..	6,432	4,437

RELATED REPORTS

Data on educational attainment for persons 14 years old and over in March 1959, March 1962, March 1964, March 1965 and 1966, and March 1967 were published in Current Population Reports, Series P-20, Nos. 99, 121, 138, 158, and 169, respectively. Statistics on educational attainment of the Negro population in 1967 are presented in Current Population Reports, Series P-20, No. 175. Further information on educational attainment is presented in "Educational Change in a Generation: March 1962," Series P-20, No. 132. In addition, educational attainment as determined in the Current Population Survey is related to labor force characteristics in publications of the Bureau of Labor Statistics, as in "Educational Attainment of Workers, March 1967," published in the February 1968 issue of Monthly Labor Review. Statistics on educational attainment are also available in several reports of the 1960 Census of Population, the most relevant of which is PC(2)-5B, Educational Attainment. Volume I, Characteristics of the Population, chapter C, "General Social and Economic Characteristics," and chapter D, "Detailed Characteristics," also include statistics on educational attainment. Report PC(2)-1C, Nonwhite Population by Race, includes educational data for selected races.

Apart from the different dates at which the statistics were collected, the education data from the March 1968 Current Population Survey may differ from those from the 1960 Census and from projections based on the census for the following reasons: (1) Members of the Armed Forces in the United States living off post or with their families on post are included in the survey, but all other members of the Armed Forces are excluded from it. All members of the Armed Forces in the United States are included in the census data. (2) Statistics from both the census and the CPS are subject to sampling and response errors. There are differences in coverage, enumeration techniques (self-enumeration versus direct enumeration), and the methods of allocating nonresponses.

The Content Evaluation Study of the 1960 Census is a major source of information about the accuracy of census data on educational attainment. A comparison by detailed categories of years of school reported for each level suggests a net overreporting on years of school completed for about 6 percent of the population 25 years old and over.[1] A comparison of CPS with 1960 Census

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[1] Evaluation and Research Program of the U.S. Censuses of Population and Housing, 1960: Accuracy of Data on Population Characteristics as Measured by Reinterviews, Series ER 60, No. 4, table 12.

figures shows that the CPS figures include more persons with 12 years or more of school completed and fewer with less than 12 years. If the Content Evaluation Study is taken as a standard, the 1960 Census figures on educational attainment show a slight upward bias. The CPS figures are still higher than the census figures and may, therefore, be more biased in the direction of high educational attainment.

Because of the differences mentioned above, care should be exercised in comparing the data for March 1968 with those from the 1960 Census.

DEFINITIONS AND EXPLANATIONS

Population coverage.--The figures in this report for March 1968 are sample survey data and relate to the population of the 50 States and the District of Columbia. Inmates of institutions are included in the sample. Members of the Armed Forces living off post or with their families on post are included, but all other members of the Armed Forces are excluded.

Age.--The age classification is based on the age of the person at his last birthday.

Race and color.--The term "race" in this report refers to the division of population into three groups, white, Negro, and other races. The group designated as "other races" consists of Indians, Japanese, Chinese, and other nonwhite races. The term "color" refers to the twofold classification white and nonwhite.

Years of school completed.--Data on years of school completed in this report were derived from the combination of answers to two questions: (a) "What is the highest grade of school he has ever attended?" and (b) "Did he finish this grade?"

The questions on educational attainment apply only to progress in "regular" schools. Such schools include graded public, private, and parochial elementary and high schools (both junior and senior high), colleges, universities, and professional schools, whether day schools or night schools. Thus, regular schooling is that which may advance a person toward an elementary school certificate or high school diploma, or a college, university, or professional school degree. Schooling in other than regular schools was counted only if the credits obtained were regarded as transferable to a school in the regular school system.

The median years of school completed is defined as the value which divides the population into two equal parts--one-half having completed more schooling and one-half having completed less schooling than the median. This median was computed after the statistics on years of school completed had been converted to a continuous series of numbers (e.g., completion of the first year of high school was treated as completion of the 9th year and the completion of the first year of college as completion of the 13th year). The persons completing a given school year were assumed to be distributed evenly within the interval from .0 to .9 of the year (for example, persons completing the 12th year were assumed to be distributed evenly between 12.0 and 12.9). In fact, at the time of the March survey, most of the enrolled persons had completed about three-fourths of a school year beyond the highest grade completed, whereas a large majority of persons who were not enrolled had not attended any part of a grade beyond the highest one completed. The effect of the assumption is to place the median for younger persons slightly below, and for older persons slightly above, the true median. Because of the inexact assumption as to the distribution within an interval, this median is more appropriately used for comparing groups and the same group at different dates than as an absolute measure of educational attainment.

Assignment of educational attainment for those not reporting.--When information on either the highest grade attended or completion of the grade was not reported in the 1968 survey, entries for the items were assigned using an edit in the computer (table D). The general procedure was to assign an entry for a person that was consistent with entries for other persons with similar characteristics. The specific technique used in the March 1968 survey was as follows:

1. The computer stored reported data on highest grade attended by color and age, and on completion of the grade by age and highest grade attended, for person 14 years old and over in the population.

2. Each stored value was retained in the computer only until a succeeding person having the same characteristics (e.g., same color and age, in the case of assignments for highest grade attended) and having the item reported, was processed through the computer. Then the reported data for the succeeding person were stored in place of the one previously stored.

3. When one or both of the education items for a person 14 years old and over was not reported, the entry assigned to this person was that stored for the last person who had the same characteristics.

Table D.--NUMBER AND PERCENT OF ALLOCATIONS FOR NONRESPONSE ON HIGHEST YEAR OF SCHOOL COMPLETED BY PERSONS 14 YEARS OLD AND OVER, BY RACE, FOR THE UNITED STATES: MARCH 1968

(Numbers in thousands)

Highest year of school completed	All classes			White			Nonwhite					
							Total			Negro		
	Total	Allocated		Total	Allocated		Total	Allocated		Total	Allocated	
		Number	Percent		Number	Percent		Number	Percent		Number	Percent
Total, 14 years old and over............	142,181	624	0.4	126,701	508	0.4	15,481	116	0.7	14,110	107	0.8
No school years completed..	1,629	17	1.0	1,197	13	1.1	432	4	0.8	366	3	0.7
Elementary: 1 to 7 years..	18,243	115	0.6	14,181	74	0.5	4,062	40	1.0	3,871	35	0.9
8 years.......	19,695	93	0.5	17,787	83	0.5	1,908	9	0.5	1,759	9	0.5
High school: 1 to 3 years..	31,473	153	0.5	27,363	130	0.5	4,111	23	0.6	3,886	20	0.5
4 years.......	43,679	155	0.4	40,363	128	0.3	3,316	28	0.8	2,920	28	1.0
College: 1 to 3 years..	15,089	45	0.3	14,127	39	0.3	963	7	0.7	816	7	0.8
4 years.......	7,925	21	0.3	7,455	17	0.2	470	4	0.9	363	4	1.2
5 years or more........	4,448	25	0.6	4,228	23	0.6	220	1	0.6	129	1	1.0

Metropolitan-nonmetropolitan residence.--The population residing in standard metropolitan statistical areas (SMSA's) constitutes the metropolitan population. Except in New England, an SMSA is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, SMSA's consist of towns and cities, rather than counties. The metropolitan population in this report is based on SMSA's as defined in the 1960 Census and does not include any subsequent additions or changes.

The population inside SMSA's is further classified as "in central cities" and "outside central cities." With a few exceptions, central cities are determined according to the following criteria:

1. The largest city in an SMSA is always a central city.

2. One or two additional cities may be secondary central cities on the basis and in the order of the following criteria:

a. The additional city or cities have at least 250,000 inhabitants.

b. The additional city or cities have a population of one-third or more of that of the largest city and a minimum population of 25,000.

Farm-nonfarm residence.--The farm population refers to rural residents living on farms. The method of determining farm-nonfarm residence in the March 1968 survey and in the Current Population Surveys since March 1960 is the same as that used in the 1960 Census but differs from that used in earlier censuses.

The nonfarm population, as the term is used here, comprises persons living in urban areas and rural persons not on farms.

According to the current definition, the farm population consists of all persons living in rural territory on places of less than 10 acres yielding agricultural products which sold for $250 or more in the previous year, or on places of 10 acres or more yielding agricultural products which sold for $50 or more in the previous year. Rural persons in institutions, motels, and tourist camps, and those living on rented places where no land is used for farming, are not classified as farm population.

Geographic regions.--The four major regions of the United States, for which data are presented in this report, represent groups of States, as follows:
Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

North Central: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Mississippi, Maryland, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

West: Arizona, Colorado, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, Alaska, and Hawaii.

Mobility status.--The civilian population of the United States has been classified according to mobility status on the basis of a comparison between the place of residence of each individual at the survey date and the place of residence one year earlier.

In the classification on mobility status, three main categories are distinguished:

1. Nonmovers.--This group consists of persons who are living in the same house at the end of the period as at the beginning of the period.

2. Movers.--This group consists of all persons who were living in a different house in the United States at the end of the period than at the beginning of the period.

3. Persons abroad.--This group consists of persons, either citizens or aliens, whose place of residence was outside the United States at the beginning of the period, that is, in an outlying area under the jurisdiction of the United States or a foreign country.

Movers are subdivided in terms of type of mobility into the following two major groups-- (1) those living in the "same county" and (2) "migrants" or those living in a "different county" at the end than at the beginning of the period. Migrants are further classified as living in the same State as their previous residence or in a different State.

Employed.--Employed persons comprise those civilians who, during the survey week, were either (1) "at work"--those who did any work for pay or profit, or worked without pay for 15 hours or more on a family farm or business; or (2) "with a job but not at work"--those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of vacation, illness, industrial dispute, or bad weather, or because they were taking the week off for various other reasons.

Occupation.--Data on occupation are shown for the employed and relate to the job held during the survey week. Persons employed at two or more jobs were reported in the job at which they worked the greatest number of hours during the week. The major groups used here are mainly the major groups used in the 1960 Census of Population. The composition of these groups is shown in 1960 Census of Population, Volume I, Characteristics of the Population, Part 1, United States Summary.

Data are shown for 4 broad occupational groups (white-collar workers, blue-collar workers, service workers, and farm workers), which represent combinations of the 10 major groups. All persons engaged directly in agricultural production are classified as farm workers in this report. This included farm proprietors, managers, foremen, and laborers. The nonagricultural group is subdivided into three groups. The white-collar group includes professional workers, proprietors, managers, and sales and clerical workers. The blue-collar group includes craftsmen, machine operatives, and laborers (other than farm); and the service category includes private household workers and other service workers.

Income.--For each person in the sample 14 years old and over, questions were asked on the amount of money income received in 1967 from (1) money wages or salary, (2) net income from self-employment and (3) other income. Wage or salary income in 1967 is defined as the total money earnings received for work performed as an employee during the calendar year 1967. It includes wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses earned, before deductions were made for taxes, bonds, pensions, union dues, etc. Net income from self-employment is defined as net money income (gross receipts minus operating expenses) from a business, partnership, professional enterprise, or farm in which the person was engaged in his own account. Other money income includes money income received from the following sources: (1) Social Security, veterans' payments, or other government or private pensions; (2) interest (on bonds or savings), dividends, and income from annuities, estates, or trust; (3) net income from boarders or lodgers, or from renting property to others; (4) all other sources such as unemployment benefits, public assistance, alimony, etc.

The amounts received represent income before deductions for personal taxes, Social Security, bonds, etc. It should be noted that although the income statistics refer to receipts during 1967, the characteristics of the person, such as age, labor force status, and occupation, and the characteristics and composition of the family refer to March 1968. Income of farm persons does not include income "in kind" such as the value of farm

roduce consumed at home, or rental value of the home they own. Furthermore, the cost of living is generally higher in urban areas, requiring higher incomes to maintain a similar level of living.

Rounding of estimates.--Individual figures are rounded to the nearest thousand without being adjusted to group totals, which are independently rounded. Percentages are based on the unrounded absolute numbers.

SOURCE AND RELIABILITY OF THE ESTIMATES

Source of data.--The estimates are based on data obtained monthly in the Current Population Survey of the Bureau of the Census. The sample is spread over 449 areas comprising 863 counties and independent cities, with coverage in each of the 50 States and the District of Columbia. Approximately 50,000 occupied households are designated for interview each month. Of this number, 2,250 occupied units, on the average, are visited but interviews are not obtained because the occupants are not found at home after repeated calls or are unavailable for some other reason. There are also about 8,500 sample units in an average month that are visited but are found to be vacant or otherwise not to be enumerated.

The estimating procedure used in this survey involved the inflation of the weighted sample results to independent estimates of the civilian noninstitutional population of the United States by age, color, and sex. These independent estimates were based on statistics from the 1960 Census of Population; statistics of births, deaths, immigration, and emigration; and statistics on the strength of the Armed Forces. To these figures were added estimates of the institutional population based on the assumption that the percent of the population who were inmates in each age and sex group in 1968 was the same as in the 1960 Census. Members of the Armed Forces living off post or with their families on post found in the survey were also included.

Reliability of the estimates.--Since the estimates are based on a sample, they may differ somewhat from the figure that would have been obtained if a complete census had been taken using the same schedules, instructions, and enumerators. As in any survey work, the results are subject to errors of response and of reporting as well as being subject to sampling variability.

The standard error is primarily a measure of sampling variability, that is, of the variations that occur by chance because a sample rather than the whole of the population is surveyed. As calculated for this report, the standard error also partially measures the effect of response and enumeration errors but does not measure any systematic biases in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census figure by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error.

The figures presented in tables E and F are approximations to the standard errors of various estimates shown in this report. In order to derive standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were

Table E.--STANDARD ERROR OF ESTIMATED NUMBER

(68 chances out of 100)

Size of estimate	Standard error	Size of estimate	Standard error
25,000........	7,000	2,500,000....	74,000
50,000........	11,000	5,000,000....	98,000
100,000.......	15,000	10,000,000...	139,000
250,000.......	23,000	25,000,000...	213,000
500,000.......	33,000	50,000,000...	262,000
1,000,000.....	49,000		

Table F.--STANDARD ERROR OF ESTIMATED PERCENTAGE

(68 chances out of 100)

Estimated percentage	Base of percentage (thousands)						
	250	500	1,000	5,000	10,000	25,000	50,000
2 or 98.....................	1.3	0.9	0.6	0.3	0.2	0.1	0.1
5 or 95.....................	2.0	1.4	1.0	0.4	0.3	0.2	0.2
10 or 90....................	2.8	2.0	1.4	0.6	0.4	0.2	0.2
25 or 75....................	4.0	2.8	2.0	0.9	0.6	0.4	0.3
50..........................	4.6	3.3	2.3	1.0	0.7	0.4	0.3

required. As a result, the tables of standard errors provide an indication of the order of magnitude of the standard errors rather than the precise standard error for any specific item.

The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the percentage and the size of the total upon which the percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are large (50 percent or more).

Illustration: Table 1 of this report shows that 9,244,000 of the population aged 35 to 44 had completed 4 years of high school but had not finished a year of college. Interpolation in table E shows the standard error on 9,244,000 to be approximately 132,000.

The chances are 68 out of 100 that a complete census would have differed from the sample estimate by less than 132,000. The chances are 95 out of 100 that the difference would have been less than 264,000.

These 9,244,000 represented 39.1 percent of the 23,635,000 population aged 35 to 44. Interpolation in table F shows the standard error of 39.1 percent with a base of 23,635,000 to be about 0.4 percent. Consequently, the chances are 68 out of 100 that a complete census would have disclosed the figure to be between 38.7 and 39.5 percent, and 95 out of 100 that the figure would have been between 38.3 and 39.9 percent.